

**Claims**

1. Process for the synthesis of monochloramine by reaction of an ammonium chloride solution with a sodium hypochlorite solution, characterized in that the sodium  
5 hypochlorite solution is basified beforehand with an inorganic base and in that the ratio of the concentration of ammonium chloride in the reaction medium to the concentration of sodium hypochlorite in the reaction medium is between 1 and 1.5.
- 10 2. Process according to Claim 1, characterized in that the ratio of the concentration of ammonium chloride in the reaction medium to the concentration of sodium hypochlorite in the reaction medium is 1.1.
3. Process according to Claim 1, characterized in  
15 that the inorganic base is chosen from the group consisting of sodium hydroxide, potassium hydroxide and lithium hydroxide.
4. Process according to Claim 3, characterized in that the inorganic base is sodium hydroxide.
- 20 5. Process according to Claim 1, characterized in that the inorganic base is used in the form of an aqueous solution.
6. Process according to Claim 1, characterized in that the concentration of the inorganic base in the  
25 sodium hypochlorite solution is between 0.05 mol/l and 1 mol/l.
7. Process according to Claim 6, characterized in that the concentration of inorganic base in the sodium hypochlorite solution is between 0.1 and 0.5 mol/l.

8. Process according to Claim 1, characterized in that the volume of the sodium hypochlorite solution used and the volume of the ammonium chloride solution used are identical.

5 9. Process according to Claim 1, characterized in that the reaction is carried out at a temperature of between  $-15^{\circ}\text{C}$  and  $0^{\circ}\text{C}$ .

10. Process according to Claim 1, characterized in that the concentration of sodium hypochlorite in the  
10 reaction medium is between 0.5 mol/l and 1.5 mol/l.